



INSTRUCTIONS

-J04909

REV. 2009-06-01

PREMIUM SUSPENSION KIT

GENERAL

Kit Number

54530-10

Models

For model fitment information, see the P&A Retail Catalog or the Parts and Accessories section of www.harley-davidson.com (English only). Kit is not compatible with saddle bags P/N 90328-08.

Additional Parts Required

Separate purchase and installation of additional parts or accessories may be required for proper installation of this kit on your model motorcycle. See the P&A Retail Catalog or the Parts and Accessories section of www.harley-davidson.com (English only) for a list of required parts or accessories for your model.

WARNING

The rider's safety depends upon the correct installation of this kit. Use the appropriate service manual procedures. If the procedure is not within your capabilities or you do not have the correct tools, have a Harley-Davidson dealer perform the installation. Improper installation of this kit could result in death or serious injury. (00333a)

NOTE

This instruction sheet references service manual information. A service manual for your model motorcycle is required for this installation and is available from a Harley-Davidson Dealer.

Kit Contents

See Figure 9 and Table 6.

REMOVAL

Front Fork Assembly

1. Refer to the XR model section of the service manual and remove the front forks.

INSTALLATION

Front Fork Assembly

1. Install front forks from kit to motorcycle according to service manual instructions but do not tighten the fork bracket pinch screws at this time.
2. See Figure 1. Measure the distance from the top of upper fork bracket to top of fork assembly. Both sides must be exactly the same and measure 0.388-0.468 inch (9.85-11.89 mm) above the top fork bracket. Align the adjustment screws inline with the handlebars (see Figure 5).



Figure 1. Fork Installation Height Measurement.

NOTE

If new pinch screws are not readily available, use a wire grinder wheel to remove all remaining lock patch from original pinch screws, wash screws in clean solvent and dry thoroughly. Apply two drops of LOCTITE® 262 to the first 1/4 in. (6.35 mm) of the end threads.

3. Install pinch screws to upper and lower fork brackets.
4. Verify fork tube installation measurement is 0.388-0.468 inch (9.85-11.89 mm).
5. Tighten pinch screws to 30-35 ft-lbs (40.7-47.5 Nm)).

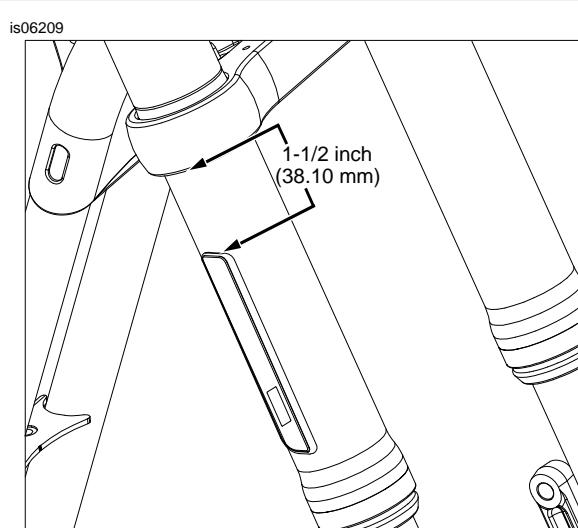


Figure 2. Attaching Reflectors to Fork Sliders

NOTE

See Figure 2. The top edge of reflector should be 1-1/2 inches (38.10 mm) below the lower edge of the bottom fork clamp.

6. Remove the adhesive backing. Place reflector in position and press reflector firmly into place to activate the adhesive. Repeat for reflector on opposite fork.

REMOVAL

OEM Rear Shock Absorbers

1. Refer to the XR model section of the service manual and remove the rear shock absorbers.

INSTALLATION

Rear Shock Absorbers

1. See Figure 3. Install the rear shock absorbers according to service manual instructions. The shocks are installed with the external gas reservoir to the rear of the shock absorbers and the thick side of the grommet installed to the frame rail mounts.

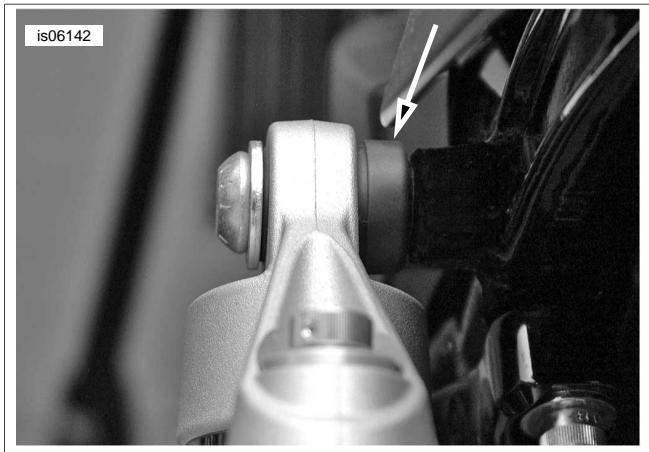


Figure 3. Install Thick Side Of Grommet To Frame Rail

SUSPENSION ADJUSTMENTS

Front Fork Suspension Adjustment

WARNING

Whenever a wheel is installed and before moving the motorcycle, pump brakes to build brake system pressure. Insufficient pressure can adversely affect brake performance, which could result in death or serious injury. (00284a)

WARNING

Adjust both forks equally. Improper fork adjustment can lead to loss of control, which could result in death or serious injury. (00124c)

CAUTION

Compression and rebound adjusting valves may be damaged if too much force is used at either end of the adjustment range. (00237a)

NOTES

Damping is set at the factory for the average solo rider under normal riding conditions. The rider may make adjustments to compensate for individual riding styles and varying road conditions. Evaluating and changing the rebound and compression damping is a very subjective process with many variables and should be approached carefully.

The front and rear preload setting will need to be adjusted for the rider's weight and cargo. This adjustment should be made before the motorcycle is ridden any distance and after changing the overall vehicle weight (adding saddlebags, etc.). If the preload adjustment is correct, and you have the rebound and compression damping set at the factory recommended points, the motorcycle should handle and ride properly.

Changes in the load carried requires changes in the preload setting(s). Carrying less weight than was used for setting up the suspension requires decreasing the amount of preload. Increasing the load carried requires adding more preload.

The following tools are needed to make suspension adjustments.

- 5 mm hex key (front fork preload adjustment tool).
 - Spanner wrench with extension handle (shock absorber preload adjustment).
 - Screw driver (front fork damping adjustment).
1. Front fork preload adjustment:
 - a. See Figure 4 and Table 1. Using the 5 mm hex key, turn the preload adjuster counterclockwise until it stops. This is the minimum preload setting.
 - b. Turn the preload adjuster clockwise the recommended amount specified for the rider weight.

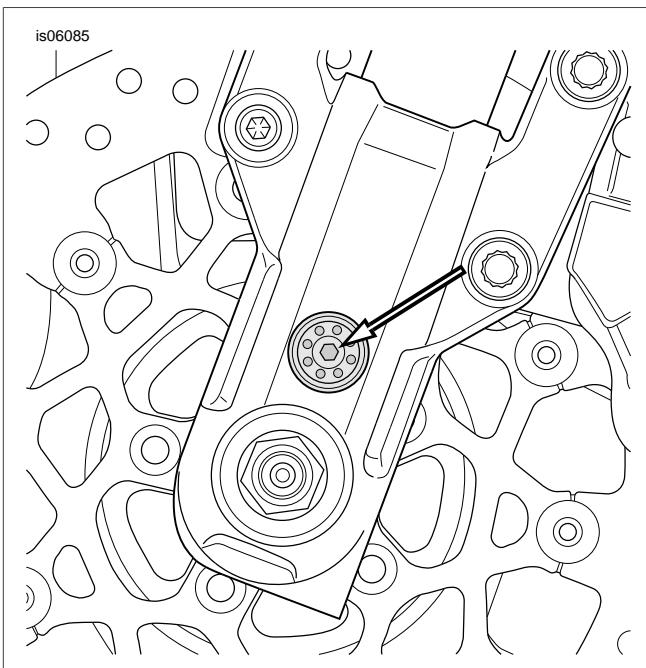


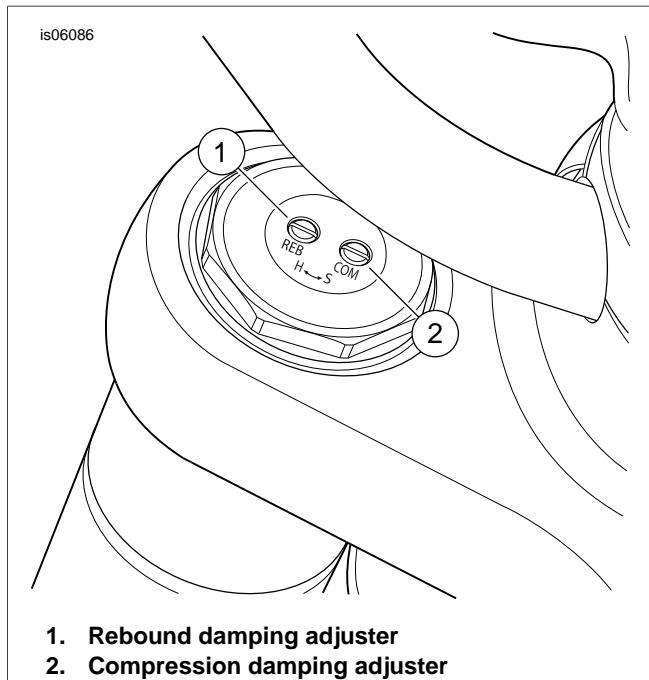
Figure 4. Fork Preload Adjuster

Table 1. Recommended Fork Preload Adjustment

RIDER WEIGHT	PRELOAD*
Less than 165 lbs (75 kg)	0-4 turns in
165-195 lbs (75-89 kg)	4-6 turns in
195-225 lbs (89-102 kg)	6-8 turns in
225-255 lbs (102-116 kg)	8-10 turns in
Greater than 255 lbs (116 kg)	More than 10 turns

*Values shown are clockwise turns in from minimum. Rotate adjuster clockwise to increase preload or counterclockwise to decrease preload.

2. Front rebound damping adjustment:
 - a. See Figure 5 and Table 2. Turn the rebound damping adjuster clockwise until it stops. This is the maximum rebound damping setting.
 - b. Turn the adjuster counterclockwise within the range of turns specified to the desired setting.
3. Front fork compression damping adjustment:
 - a. See Figure 5 and Table 2. Turn the compression damping adjuster clockwise until it stops. This is the maximum compression damping setting.
 - b. Turn the adjuster counterclockwise within the range of turns specified to the desired setting.

**Figure 5. Fork Rebound and Compression Damping Adjusters****Table 2. Recommended Fork Rebound and Compression Damping Adjustment: XR 1200X**

DAMPING*	NOMINAL (FROM MAXIMUM)
Rebound (REB)	3 turns
Compression (COM)	5 turns

*Values shown are counterclockwise turns out from maximum. Rotate adjuster clockwise to increase damping or counterclockwise to decrease damping.

Shock Absorber Suspension Adjustment**WARNING**

Adjust both shock absorbers equally. Improper adjustment can adversely affect stability and handling, which could result in death or serious injury. (00036b)

CAUTION

Compression and rebound adjusting valves may be damaged if too much force is used at either end of the adjustment range. (00237a)

NOTE

Do not force adjusters beyond the mechanical stops.

1. Shock absorber preload adjustment:
 - a. See Figure 6 and Table 3. Using the spanner wrench turn the adjusting cam (1) to the recommended position as specified in Table 3.
2. Shock absorber compression damping adjustment:
 - a. See Figure 6. Using fingers, turn the compression adjuster (2) clockwise (toward the "H") until it stops. This is the maximum compression damping setting.
 - b. See Table 4. Turn the compression adjuster counterclockwise (toward the "S") the recommended amount.
3. Shock absorber rebound damping:
 - a. See Figure 7. Turn the rebound adjuster counterclockwise (toward the "H") until it stops. This is the maximum rebound damping setting.
 - b. See Table 4. Turn the rebound adjuster clockwise (toward the "S") the recommended amount.

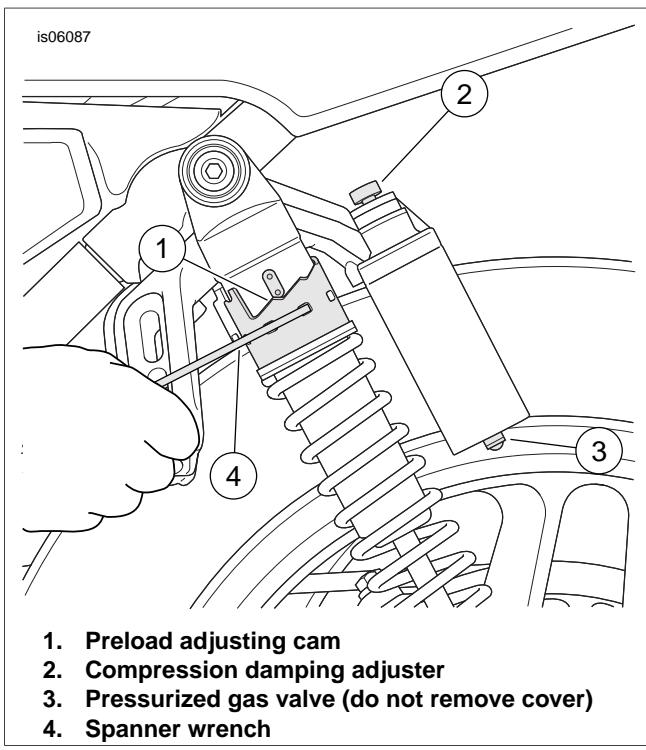


Figure 6. Rear Shock Preload and Compression Damping Adjusters

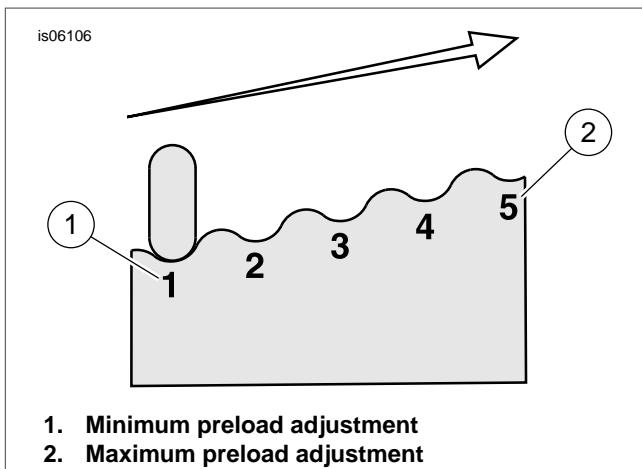


Figure 8. Shock Absorber Preload Adjustment

Table 3. Recommended Rear Shock Preload Adjustment

RIDER WEIGHT	PRELOAD
Less than 165 lb (75 kg)	Position 1
165-195 lb (75-89 kg)	Position 2
195-225 lb (89-102 kg)	Position 3
225-255 lb (102-116 kg)	Position 4
Greater than 255 lb (116 kg)	Position 5

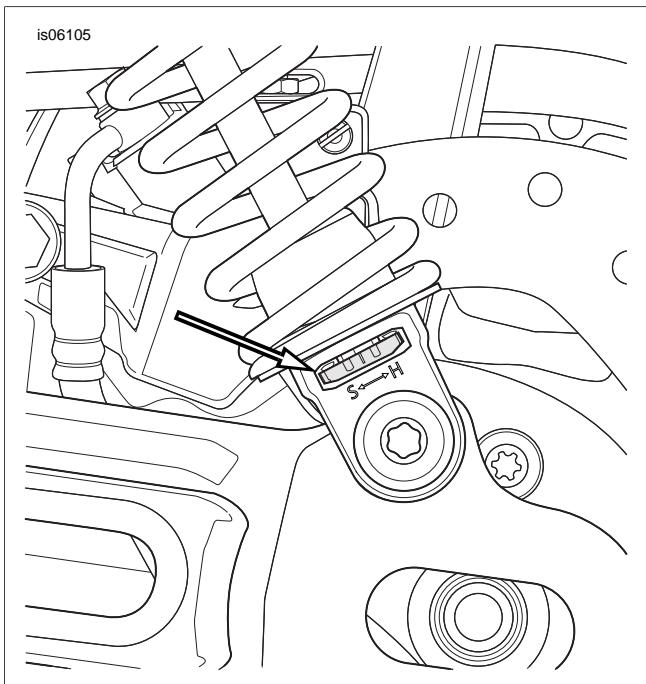


Figure 7. Rear Shock Rebound Damping Adjuster

Table 4. Recommended Rear Shock Rebound and Compression Damping Adjustment: XR 1200X

DAMPING	NOMINAL (From Maximum)
Compression (COM)	7 clicks
Rebound (REB)	5 clicks

SUSPENSION TUNING

NOTE

After the preload and damping have been set to the recommended settings, additional adjustments can be made to enhance the comfort, control and handling characteristics of the motorcycle. These adjustments may be based on personal riding style, desired ride quality, and varying road conditions.

1. Set the front forks and shock absorbers to the recommended settings. Properly inflate the tires.
2. Determine the ride quality of the motorcycle. Ride the motorcycle on a familiar road with a variety of bumps and turns. Ride over different surfaces at varying speeds. If the suspension is set properly, the vehicle suspension will feel controlled and comfortable.
3. See Table 5. Adjust the rebound and compression damping according to the motorcycle behavior experienced during the ride.
4. After adjusting the suspension, ride the motorcycle again to check for comfort and response.

NOTE

When tuning the suspension, make all adjustments in small increments. Radical setting changes may overshoot the best adjustment setting.

**Table 5. Suspension Damping Adjustment Guidelines:
XR 1200X**

MOTORCYCLE BEHAVIOR	SUGGESTED REMEDY
Soft or unsettled feeling around corners or after bumps	Increase rebound damping
Leaping feeling or topping after large bumps	Increase rebound damping
Harsh/sharp feedback over bumps	Decrease rebound damping
Feels like motorcycle drops down over chatter bumps	Decrease rebound damping
Excessive bottoming through potholes	Increase compression damping
Excessive dive when applying front brake	Increase compression damping (forks)
Hard feeling or inadequate absorption over bumps	Decrease compression damping
Feels excessively stiff or busy around corners	Decrease compression damping

MAINTENANCE

Shock Absorbers: These shock absorbers contain pressurized gas. Visually inspect the shock absorbers while observing the following precautions.

 **WARNING**

Shock absorber cannot be serviced. Attempting service can cause an explosion, which could result in death or serious injury. (00602d)

- Do not refill, disassemble, puncture or expose shock to flames.
- Replacement and disposal should only be done by an authorized Harley-Davidson dealer.

Front Forks: The service procedure for these forks are different than other forks. Refer to the service manual for XR1200X forks for inspection, maintenance, and service procedures.

SERVICE PARTS

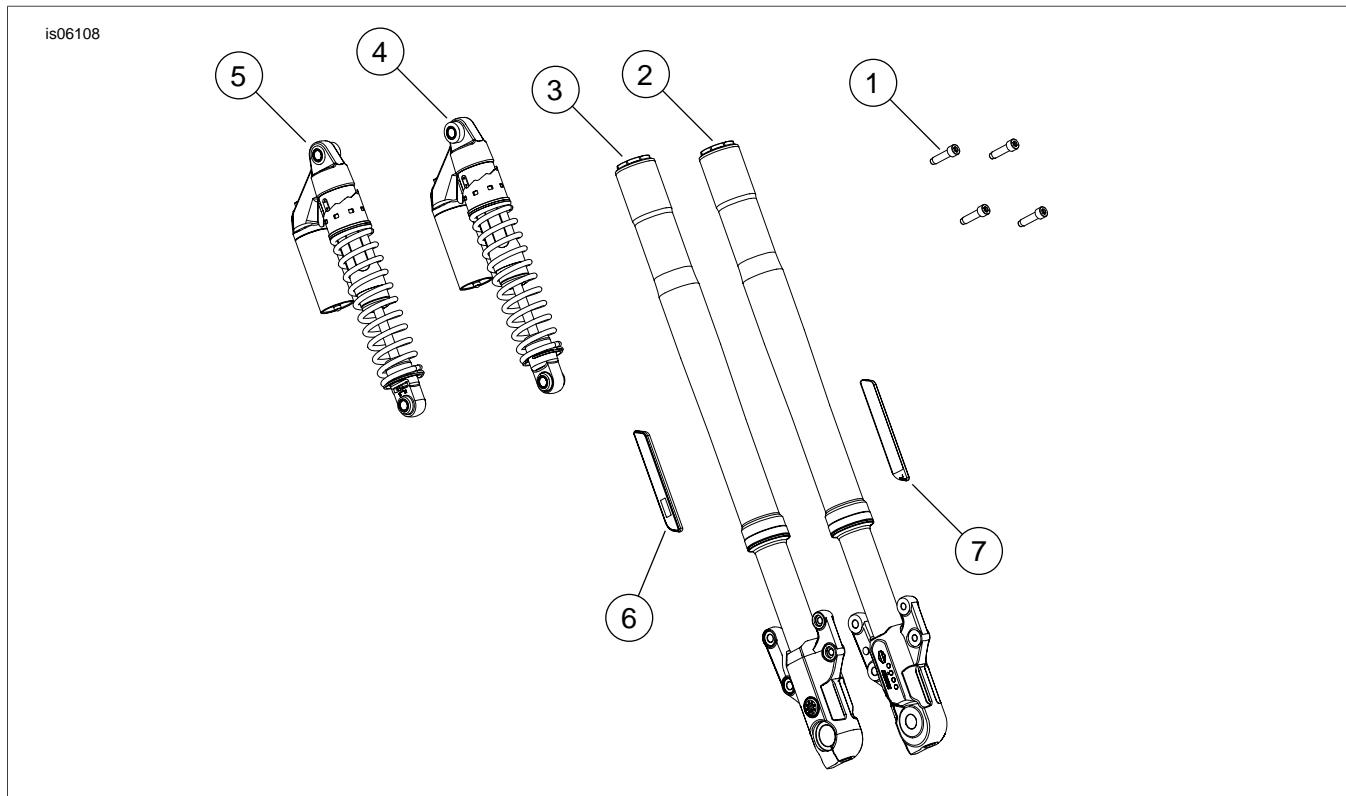


Figure 9. Service Parts: Premium Suspension Kit

Table 6. Service Parts Table

Item	Description (Quantity)	Part Number
1	TORX® screw, self tapping, 3/8-16 x 1.5 in. (4)	4352
2	Front fork assembly, left	48771-10
3	Front fork assembly, right	48778-10
4	Shock absorber, left	54671-10
5	Shock absorber, right	54700-10
6	Amber reflector, right	69861-07
7	Amber reflector, left	69862-07